

## ABSTRACT OF THE DISCLOSURE (Amended)

[ Method of identification and quantitative analysis of aldehyde(s) and/or ketone(s) in a sample by mass spectrometry using stable isotope labeled internal standard is provided. Said internal standard is prepared by reaction of an authentic sample of said aldehyde(s) and/or ketone(s) with a stable isotope labeled reagent, and is added to a sample containing said aldehyde(s) and/or ketone(s). Said aldehyde(s) and/or ketone(s) in said sample is then quantitatively converted to a chemical compound of identical structure, except the stable isotope atoms, as that of said internal standard using a non-labeled reagent. Said sample is then extracted and the extract is analyzed by mass spectrometry. Identification and quantification of said aldehyde(s) and/or ketone(s) are made from a plot of ion ratio of said converted aldehyde and/or ketone to said internal standard versus aldehyde and/or ketone concentration.] A method of identification and quantitative analysis of aldehydes and/or ketones in a sample by mass spectrometry using stable isotope labeled oxime internal standards or stable isotope labeled hydrazone internal standards is provided. Stable isotope labeled oxime internal standards are synthesized by reaction of an authentic sample of aldehydes and/or ketones with a stable isotope labeled alkoxyamine reagent while stable isotope labeled hydrazone internal standards are synthesized by reaction of an authentic sample of aldehydes and/or ketones with a stable isotope labeled alkylhydrazine reagent. A non labeled version of the stable isotope labeled reagent is used to convert aldehydes and/or ketones in the sample to the non labeled version of the stable isotope labeled oxime or hydrazone internal standards.